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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,703	09/30/2003	Philip R. Kennedy	18657.1	6330

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EXAMINER
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NASSER, ROBERT L

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/675,703

**Applicant(s)**

KENNEDY, PHILIP R.

**Examiner**

Robert L. Nasser

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-8, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 11-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/13/2006 has been entered.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites that the monitor is an external monitor. The examiner notes that the term external seems to mean external to the body. As such, the claim recites a positive relationship to the body, which is non-statutory. Applicant should recite that the receiver is adapted to be placed externally of the body or use similar language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-3, 6-8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitra et al 6920351 in view of Donoghue et al 2004/0082875, Llinas et al 20040133118 in view of Cosgrove Jr. 4533346. Mitra shows a systems enabling control of a cursor on a display screen (see column 8, line 37), prosthetic limb including a plurality of electrodes implanted at a plurality of sites in the brain (see column 5, lines 30-37) and an external processing system which detects the occurrence of spikes when a potential spikes meets amplitude and duration thresholds (see column 5, lines 49-51 in combination with column 2, lines 13-20). Once the spikes are detected, they are processed and used to control a prosthetic limb. The system lacks a transponder and receiver combination, a second electrode, and a system where the electrodes are conductive screws. Donoghue further teaches that it is well known to wirelessly transmit the data to a remote location, to allow the patient freedom of movement. Hence, it would have been obvious to modify Mitra to wirelessly transmit the data, to allow the patient to be free to move and not be tethered to the processing system. In addition, Llinas et al teaches that it is well known to include a second electrode and take the differential between two electrodes to eliminate common mode noise. Hence, it would have been obvious to modify the above combination to include a second common mode rejection electrode with each measuring electrode, to reduce interference. Finally, However, Cosgrove teaches that stainless steel conductive screws are well known electrodes for sensing potentials in the brain (see column 11, line 44). Hence, it would have been obvious to modify the above combination screw electrodes, as it is merely the substitution of one known equivalent electrode for another. The examiner

notes that the screws are not intended to be placed through the skull. However, the term "skull screw" is an intended use limitation, i.e. it goes to how the screw is used. The screws of Cosgrove are structurally similar to applicant's and hence capable of being used as skull screws. The claims now recite that the screws have a length that corresponds to the cranium but less than a length that would cause the screws to invade the cranium. In paragraph [0021], applicant defines this length as being  $\frac{1}{4}$  to 1.5 inches. The screws of Cosgrove are  $\frac{1}{2}$  of an inch and hence fall into the claimed range. In addition, applicant now recites that the screws now have a "substantially" constant outer diameter. It is the examiner's position that the flat head screws in applicant's exhibit or other flat head screws have a "substantially" constant diameter, given that applicant has not defined the term "substantially". The examiner notes that with respect to the method claims, if applicant were to recite that the screw electrodes extend through the scalp into the brain where they contacted the neural tissue, it would overcome the rejection above. In addition, the combination amplifies the signal prior to transmission. With respect to claims 2 and 8, Donoghue further teaches inductively powering a circuit like that of Mitra. Hence, it would have been obvious to modify the above combination to use such an inductive power circuit, as it is merely the substitution of one known power supply technique for another.

Applicant's arguments filed 4/13/2006 have been fully considered but they are moot in view of the new grounds of rejection.

The examiner recognizes that the above rejection is a four reference combination. However, it is the examiner's position that modifying the Mitra device to

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be wireless, reject common mode noise, and use a different known electrode are all minor changes and do not disrupt the operating principles of the invention of Mitra.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser  
Primary Examiner  
Art Unit 3735

RLN  
May 29, 2006

ROBERT L. NASSER  
PRIMARY EXAMINER

*Robert L. Nasser*